Docket No.: YOM-0099

IN THE CLAIMS

1-14. (Canceled)

15. (Currently amended) A method for the preparation of a high molecular weight polycarbonate resin, which comprises the steps of:

a) preparing a crystalline polycarbonate in the form of particles having an average diameter of 80 to 3,000 μm and a variation for the average particle diameter distribution of less than 20%, which comprises the ~~step~~ steps of

dissolving an amorphous polycarbonate having a weight average molecular weight of 1,500 to 30,000 g/mol in a solvent;

transferring the polycarbonate solution into a drying chamber and spraying the transferred solution using a nozzle in the drying chamber; and

contacting the sprayed solution with a high temperature gas to evaporate the solvent; and

b) conducting a solid state polymerization of the crystalline polycarbonate prepared in step a) to prepare a high molecular weight polycarbonate resin having a weight average molecular weight of 35,000 to 200,000 g/mol.

16. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 15, wherein the b) solid state polymerization is carried out by injecting the crystalline polycarbonate prepared in step a) into a solid state polymerization reactor and then continuously injecting nitrogen thereinto, or by polymerizing it while eliminating the reaction byproducts under a reduced pressure of 0 to 50 mmHg.

17. (Previously Presented) The method for the preparation of the high molecular weight polycarbonate resin according to claim 15, wherein solid state polymerization temperature in step b) satisfies the following formula 1:

[Formula 1]

$T_m - 50 \leq T_p \leq T_m$

wherein T_p is a solid state polymerization temperature, and

T_m is the melting temperature of the crystalline polycarbonate.

18. (Original) A high molecular weight polycarbonate resin prepared according to the method of claim 15.

19. (Currently amended) A method for the preparation of a high molecular weight polycarbonate resin, which comprises the steps of:

(a) conducting a melt polycondensation of a dialkyl(aryl)carbonate and an aromatic hydroxyl compound in the presence of a catalyst to prepare an amorphous polycarbonate having a weight average molecular weight of 1,500 to 30,000 g/mol;

(b) dissolving the amorphous polycarbonate in a solvent to prepare an amorphous polycarbonate solution; and

(c) transferring the amorphous polycarbonate solution into a solid state polymerization reactor, and then conducting an intensive solid state polymerization, wherein crystallization and solid state polymerization are conducted simultaneously, to prepare a high molecular weight polycarbonate resin having a weight average molecular weight of 35,000 to 200,000 g/mol by spraying the amorphous polycarbonate prepared in step a) through a nozzle in an upper portion of the solid state polymerization reactor.

20. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein in the a) melt polycondensation, an ester-exchange reaction and a condensation reaction occur continuously.

21. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein in the a) melt polycondensation, the mixing ratio of the dialkyl(aryl)carbonate and the aromatic hydroxy compound is 1:1 to 1.1:1.

22. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein the dialkyl(aryl)carbonate is selected from the group consisting of diphenyl-carbonate, bis-chlorophenyl-carbonate, m-cresyl-carbonate, dinaphthyl-carbonate, dimethyl-carbonate, and dicyclohexyl-carbonate.

23. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein the aromatic hydroxy compound is selected from the group consisting of bis(4-hydroxy phenyl)-methane, 2,2-bis(4-hydroxyphenyl)-propane, 2,2-bis(4-hydroxy-3,5-dibromophenyl)-propane, 1,4-dihydroxy-3-methyl-benzene, and bis(4-hydroxyphenyl)sulfide.

24. (Currently amended) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein the catalyst is selected from the group consisting of an alkali metal ~~alkalimetal~~ catalyst selected from sodium hydroxide, potassium hydroxide, lithium hydroxide, sodium carbonate, potassium carbonate, and~~or~~ lithium carbonate; a nitrogen-based catalyst selected from the group consisting of tetramethylammoniumhydroxide ($(CH_3)_4NOH$), and~~or~~ tetrabutylammoniumhydroxide ($(C_4H_9)_4NOH$); and an acid catalyst selected from the group consisting of boric acid and~~or~~ phosphoric acid.

25. (Currently amended) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein in the a) melt polycondensation, dialkyl(~~aryl~~ aryl)carbonate that exists in an unreacted state and reaction byproducts of a low degree of polymerization of less than 3 are removed at 180 to 400°C under reduced pressure of 0 to 50 mmHg, or by injecting nitrogen of 0.1 $Nm^3/kg \cdot h$ or more.

26. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein the a) melt polycondensation is carried out in a rotating disk reactor, a rotating cage reactor, or a thin film reactor.

27. (Previously Presented) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein polycarbonate is contained in the amorphous polycarbonate solution of step b) in an amount of 5.0 to 50.0 wt%.

28. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein in step c), a compressed gas is injected at a speed of 200 to 800 *l*/hour from the lower portion of the reactor.

29. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein a temperature in the solid state polymerization reactor of step c) is 40 to 250 °C.

30. (Canceled).

31. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein the nozzle is a pressure nozzle or a pneumatic nozzle.

32. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein in step c), crystalline polycarbonate that falls into the lower portion of the solid state polymerization reactor has an average diameter of 80 to 3,000 μm, and variation of particle diameter distribution of less than 20%.

33. (Original) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein the high molecular weight polycarbonate resin prepared in step c) has poly dispersity index of less than 2.5 and poly dispersity index increase rate of less than 10% in comparison with the value before the solid state polymerization.

34. (Previously Presented) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein the degree of polymerization of the solid state polymerization reaction satisfies the following formula 3:

[Formula 3]

$X_n = \{1 + r\}$ over $\{1 + r - 2rp\}$

wherein X_n is the degree of polymerization,

r is a molar ratio of an aromatic hydroxy compound group with regard to a dialkyl(aryl)carbonate group within the non-crystalline polycarbonate solution, and

p is the extent of polymerization reaction.

35. (Previously Presented) The method for the preparation of the high molecular weight polycarbonate resin according to claim 19, wherein solid state polymerization temperature satisfies the following formula 1:

[Formula 1]

$T_m - 50 \leq T_P \leq T_m$

wherein T_p is a solid state polymerization temperature, and

T_m is the melting temperature of the non-crystalline polycarbonate.

36. (Original) A high molecular weight polycarbonate resin prepared according to the method of claim 19.